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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/161,283	09/28/1998	TOMOHIRO MAEKAWA	PMS255979	7428

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EXAMINER	
KRUER, KEVIN R	
ART UNIT	PAPER NUMBER
1773	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/161,283	Applicant(s) MAEKAWA, TOMOHIRO
	Examiner Kevin R Kruer	Art Unit 1773

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *22 October 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1,2,5,8-12 and 15-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1,2,5, 8-12, and 15-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 2, 5, and 8-23 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no support in the original disclosure for the end point 1.0um. Support for the end point 33.0um can be found in Reference Example 2 of the specification.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1, 2, 5, 8-10, 17, 21, and 22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of

U.S. Patent No. 6,444,298(Tadokoro) in view of US 6,309,739 (Koizumi). Tadokoro claims an acrylic resin laminate comprising a layer of acrylic resin composition containing an acrylic resin and acrylic resin particles, and a layer comprising an acrylic resin, wherein the proportion of the thickness of the layer comprising an acrylic resin composition containing an acrylic resin and acrylic rubber particles is about 50% or more based on the total thickness of the acrylic laminate film (claim 1). A second acrylic resin layer may be laminated on the side of the laminate opposite the first acrylic resin layer (claim 2). The resin particles are included in amounts of 20-80pbw of the acrylic resin composition (claim 4) and have a particle size of 50-500um (claim 3).

Tadokoro does not claim that the acrylic resin should be methacrylate. However, Koizumi teaches that methacrylic acid ester resins are particularly excellent in weatherability and transparency (col 1,lines 16+). Thus, it would have been obvious to one of ordinary skill in the art to utilize methacrylate as the acrylic resin claimed in Tadokoro because such resin are particularly excellent in weatherability and transparency. Furthermore, Tadokoro does not claim that the laminate may comprise ultraviolet absorbers or light diffusing agents. However, Koizumi teaches a similar laminate which may contain ultraviolet absorbers or light stabilizers (col 9, lines 52+). Thus, it would have been obvious to one of ordinary skill in the art to add such processing agents to the laminate claimed in Tadokoro in order to improve the laminate's stability to heat and light.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 5, 8-12, 15, 17-20, 22, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Toritani et al (US 5,169,903). Toritani teaches a methacrylic resin composition comprising (a) 100 parts by weight of a polymethyl methacrylate or methyl methacrylate copolymer containing at least 90% by weight of methyl methacrylate units, and (b) 2-30 parts by weight of a graft copolymer obtained by graft polymerizing a hard resin component containing at least 90% by weight of methyl methacrylate units onto a crosslinked rubbery copolymer having an average particle diameter of 0.1-1.0um (abstract). The composition may further comprise ultraviolet absorbers, heat stabilizers, colorant, filler and the like (col 8, lines 61+).

The examiner takes the position that the composition taught by Toritani reads on the claimed laminate when the three layers claimed each comprise the same composition. The examiner takes the position that there is no patentable difference between a single-layered film and a laminate comprising multiple layers with identical compositions. Furthermore, the examiner takes the position that the graft copolymer (b) taught in Toritani reads on both the claimed "insoluble methyl methacrylate resin particles" and the claimed "rubber-containing polymer."

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1, 2, 5, 8-12, and 15-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Koizumi et al (US 6,309,739). Koizumi teaches a methacrylate resin composition comprising (a) 5-50wt% of a crosslinked acrylate elastomer having a two layer structure, and (b) 50-95wt% of an alkyl methacrylate polymer prepared by polymerizing an acrylic monomer containing 80-100wt% by weight of alkyl methacrylate (abstract). The core shell polymer has a weight average particle size of 0.5-15um (col 8, line 61). The alkyl methacrylate polymer comprises 80-100wt% alkyl methacrylate and 0-20wt% alkyl acrylate (col 3, lines 22+). The composition may further comprise pigments, UV absorbents, and light stabilizers (col 9, lines 52+).

The examiner takes the position that the composition taught by Koizumi reads on the claimed laminate when the three claimed layers each comprise the same composition. The examiner takes the position that there is no patentable difference between a single-layered film and a laminate comprising multiple layers with identical compositions. Furthermore, the examiner takes the position that the crosslinked

acrylate elastomer reads on both the claimed "insoluble methyl methacrylate resin particles" and the claimed "rubber-containing polymer."

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1, 2, 5, 8-12, and 15-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO97/30117 (Tadokoro) in view of Koizumi et al (US 6,309,739) or Toritani et al (US 5,169,903). NOTE: the examiner is utilizing US 6,147,162 as a translation of WO97/30117. Tadokoro teaches an acrylic film or sheet made from a resin composition comprising 95-50wt% of an acrylic resin which comprises methyl methacrylate as a main component and 5-50wt% of a multilayer-structured acrylic polymer containing an elastomeric layer (abstract). The resin comprises 50-99wt% methyl methacrylate and 50-1wt% of an alkyl acrylate (col 3, lines 38+). The composition may comprise light stabilizers and UV absorbers (col 4, lines 27+).

Tadokoro does not teach the claimed weight average particle size. However, Koizumi teaches a composition comprising 5-50wt% of a crosslinked acrylate elastomer having a two-layered structure, and 50-95wt% of an alkyl methacrylate polymer (abstract). Koizumi teaches that the particle size of the elastomer should have a particle size of at least 0.5-15um, in order to control the film's matting effect, impact resistance, transparency, and flex whitening resistance (col 9, lines 17+). Thus, it would

have been obvious to one of ordinary skill in the art to utilize elastomers with a particle size of 0.5-15um in the composition taught in Tadokoro in order to control the composition's matting effect, impact resistance, transparency, and flex whitening resistance.

Similarly, Toritani teaches a composition comprising 100 pars by weight of a polymethyl methacrylate or methyl methacrylate copolymer, and 2-30pbw of a crosslinked rubbery copolymer (abstract). Toritani teaches that the rubbery copolymer should have an average particle diameter of 0.1-1.0um in order to control impact resistance and surface gloss (col 6, lines 7+). Thus, it would have been obvious to utilize elastomers with a particle size of 0.1-1.0um in the composition taught in Tadokoro in order to control the composition's matting effect and impact resistance.

The examiner takes the position that the composition taught by Tadokoro in view of Koizumi and Toritani reads on the claimed laminate when the three claimed layers each comprise the same composition. The examiner takes the position that there is no patentable difference between a single-layered film and a laminate comprising multiple layers with identical compositions. Furthermore, the examiner takes the position that the crosslinked acrylate elastomer reads on both the claimed "insoluble methyl methacrylate resin particles" and the claimed "rubber-containing polymer."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. JP04059246 teaches a three layered laminate comprising methacrylate skin layers and an impact resistant PMMA core layer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R Kruer whose telephone number is 703-305-0025. The examiner can normally be reached on Monday-Friday from 7:00a.m. to 4:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau, can be reached on (703) 308-2367. The fax phone number for the organization where this application or proceeding is assigned is 703-305-5408.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

K- RK-

Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700